

Hab. Stomach of a Penguin from the Antarctic Seas. Collected during the late Antarctic expedition. Brit. Mus.

5. TÆNIA FALCIFORMIS.

Tænia falciformis, Baird, Cat. Entoz. Brit. Mus. 116.

Head conical; proboscis unarmed?; suckers large, oval-shaped; no neck; body at anterior extremity very narrow, almost linear, gradually enlarging as it descends; articulations very numerous, extremely narrow. The body is flat and is curved like a sickle. Genital orifices —? Length about $2\frac{1}{4}$ inches, breadth at broadest part 1 line.

Hab. —? Collected during the Euphrates expedition. Brit. Mus.

Genus BOTHRIOCEPHALUS.

1. BOTHRIOCEPHALUS ANTARCTICUS.

Bothriocephalus antarcticus, Baird, Cat. Entoz. Brit. Mus. 90.

Head conical, elongated, smooth, with two lateral opposite fossettes. At the lower margin of each fossette there are two small rounded projecting lobes. Body rounded; from the neck some way downwards it is quite round or cylindrical, and the articulations are very numerous and very small, appearing like mere ridges across. Lower down, the body becomes flatter and the joints larger and more developed; lower margin thin. An impressed line runs along the centre of the body through its whole length. Length about 9 inches, greatest breadth of body about 3 lines.

Hab. In the stomach and intestines of a Seal caught about and within the Antarctic Circle. Collected during the late Antarctic Expedition. Brit. Mus.

MISCELLANEOUS.

Note on the Reproduction of Ligula. By M. BRULLÉ.

M. BRULLÉ has made a communication to the Academy of Sciences of Paris, stating that he has found a new mode of reproduction to prevail in a species of *Ligula*, which infested the Bleak (*Cyprinus alburnus*) in the Canal of Burgundy, in great numbers during the past summer. The *Ligulæ* have generally been regarded as Cestoid worms which passed a first, asexual stage of development in the interior of the bodies of freshwater fishes, and only acquired reproductive organs when they reached the intestines of birds. According to M. Brullé's statement, it appears that the *Ligulæ*, contrary to the generally received opinion, are capable of producing living, Cercariform young whilst still parasitic upon fishes; he saw one of these worms which he had just extracted from the body of a Bleak, produce two or three young ones, which, he adds, "resembled the parent, except that the anterior portion of their body was broader and thicker than the opposite extremity. They may be compared,

except in size, with the spermatozoa of man." This observation was made about the end of August, and although this was the only time that M. Brullé actually saw the emission of the Cercariform young, he noticed that at that period all the *Ligulæ* which he placed in water were soon accompanied by a similar progeny. After the middle of September the young were always found in company with their parents in the abdominal cavity of the Bleak*.—*Comptes Rendus*, October 23, 1854, p. 773.

Description of the Animal of Cyclina sinensis. By Dr. JOHN EDWARD GRAY, F.R.S., V.P.Z.S.

The description of this animal was written some ten or twelve years ago, from a specimen kindly given to me by Mr. John Reeves, to whom we are indebted for the knowledge of the greater part of the animals of China and Japan now known to zoologists.

The animal in most particulars agrees with that of the genus *Dosinia*, next to which I proposed to place it, in my paper on the arrangement of the genera of *Veneridæ*, published in the 'Annals and Magazine of Natural History' for January 1853.

M. Deshayes regards *Venus Chinensis* as the type of the genus *Cyclina*. In his late monograph he has united to this genus the *Lucinopsis* of Messrs. Forbes and Hanley; but the description of the animal here given will show that *Lucinopsis* is a very distinct genus, for it has separate siphons, whilst the type of the genus has the siphons united as in the other *Dosiniana*. It differs from *Dosinia* in the absence of the anterior lateral tooth.

CYCLINA SINENSIS.

Mantle lobes free the whole length of the lower margin, the lobes then with a series of radiating muscular bands, a little within the edge; united together behind and extended into a compressed, rather slender, elongated siphon, grooved along the centre of each side and ending with two apertures; the retractor muscles of the siphons angular; the foot (in spirits) rhombic, very much compressed, inferior, subcentral, the lower angle rather produced in front; the lips equal, very long, slender, triangular, more than half the length of the foot; the gills large, oblong, elongate, equal.

The crenated margins of the valves of the shell are covered with the inflexed edge of the hard periostraca; the siphonal inflection is angular.—*Proc. Zool. Soc.* Feb. 8, 1853.

* M. Brullé considers that in the present state of the question, we must suppose that the *Ligulæ* present "two modes of reproduction, one viviparous, during what has been regarded as their larva state; the other, oviparous, when they have arrived at their perfect state." From his observations it appears rather that the form of *Ligula* inhabiting the fish is very analogous to the well-known germ-sacs of many of the Trematode worms, so that it is probably one of a series of phases of development such as we find in the so-called alternation of generations.—*Ed. Annals.*